

Notice of Allowability

Application No.

10/699,091

Applicant(s)

CHEN ET AL.

Examiner

Marc S. Zimmer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

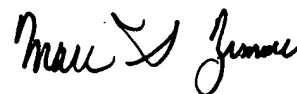
1. ☒ This communication is responsive to 12/15/05 and the interview dated 01/04/05.
2. ☒ The allowed claim(s) is/are 10, 12 and 14.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


MARC S. ZIMMER
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John McCabe on January 3, 2006.

The application has been amended as follows:

In the Specification, please add the following as a heading preceding "BACKGROUND" on the first page of the Specification:

CONTINUING DATA

This Application is a divisional application of application serial no. 10/098,286 filed 03/15/2002, now U.S. Patent # 6,747,123.

Please replace all previous versions of claim 14 with:

14. A planar optical waveguide comprising an optical core layer and an optical cladding layer for the optical core layer;
and wherein the optical cladding layer of the planar optical waveguide comprises a crosslinked collection of amphiphilic organosilicate precursors that form a matrix with an array of micro-structures dispersed therein, the micro-structures being voids or pores.

Applicant was advised that, in the Examiner's estimation, the claim language of claim 14 was confusing and imprecise because it seemed to be directed to an apparatus of which the planar optical waveguide was only a part when, in fact, it was believed that it had been Applicant's intent to claim a planar optical waveguide comprising the amphiphilic organosilicate precursor. It was recommended that claim 14 be rewritten to claim the optical waveguide with some rearrangement of the remaining description.

Allowable Subject Matter

Based on an indication of allowable subject matter in original claim 13, Applicant has amended claim 10 to include those limitations contained in claim 13. Insofar as it is not clear that the porous film contemplated by Pinnavaia would inherently be non-wettable by water, the rejection over this reference is hereby withdrawn.

In an updated/modified survey of the prior art, the Examiner encountered numerous disclosures of films derived from a combination of a silane bearing non-hydrolyzable hydrophilic groups and a silane bearing hydrophobic groups. See, for instance, Pellerite et al., U.S. Patent # 5,702,509 and Englert, U.S. patent # 5,964,934. However, the products derived from these materials are used to form continuous coating layers devoid of the microstructures mentioned in Applicant's claims. The Examiner also found many references that taught the preparation of mesoporous organosiloxane films from a mixture of a hydrophilic- or hydrophobic group-bearing silane and tetraalkoxysilane, e.g. Fan et al., U.S. Patent # 6,471,761 and Chmelka et al., U.S. Patent Application Publication No. 2004/0144726. Rotenberg et al., U.S.

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patent # 4,173,490 teaches an organosiloxane coating derived from tetraethyl orthosilicate, methyltrimethoxysilane, and glycidoxypopyltrimethoxysilane. Insofar as the latter two compounds contain non-hydrolyzable hydrophobic and hydrophilic moieties respectively, their condensates are amphiphilic. However, because the TEOS content is so high, it is unlikely that their films would be non-wettable by water. Further, there is no indication that they would be porous.

The aforementioned documents represent the closest prior art known to the Examiner. Because they fail to even render obvious the claimed invention, claims 10, 12, and 14 are deemed allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

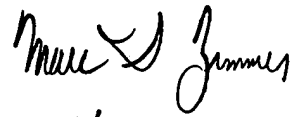
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc S. Zimmer whose telephone number is 571-272-1096. The examiner can normally be reached on Monday-Friday 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

1/4/04


MARC S. ZIMMER
PRIMARY EXAMINER